April 11, 2019

PHUNWARE

Phunware Announces Award of Patent for Mobile Device Localization Based on Relative Received Signal Strength Indicators

AUSTIN, Texas--(BUSINESS WIRE)-- Today Phunware, Inc. (NASDAQ: PHUN), a fully integrated enterprise cloud platform for mobile that provides companies the products, solutions, data and services for brands worldwide, announced the award of U.S. Patent No. 10,254,378, "Mobile Device Localization Based on Relative Received Signal Strength Indicators." This patent adds to the company's growing intellectual property portfolio, currently comprised of 16 awarded patents and 6 patents-pending.

The ability to engage mobile users based on their ever-changing, real-time location is a foundational capability of the Location Based Services products powered by Phunware's Multiscreen-as-a-Service (MaaS) platform. Today's mobile engagement and wayfinding solutions are largely based on GPS, using longitude (X) and latitude (Y) axes to determine location and position as a function of the available access to both cellular signals and towers. To solve the far more complex problem of generating and displaying a location or position inside a building in real-time on a mobile device across X, Y and Z (height) axes, Phunware has developed and deployed a proprietary method of integrating data from virtual and physical beacons, high and low-density WiFi connections and mobile device sensors into a comprehensive machine learning algorithm. These varied inputs enable a holistically determined device position and location accounting for data from each source - whether active or inactive - with gaps filled through the company's machine learning algorithm. The end-result is a seamlessly displayed "blue dot" engagement and wayfinding experience for the mobile application user indoors akin to industry-standard GPS mapping, navigation, wayfinding and geofence solutions outdoors.

"We're extremely excited to have solved a complex, one-to-one engagement problem for sub-one-second indoor interactions and position updates on mobile for our MaaS customers and their consumers," said Phunware's co-founder and CTO, Luan Dang. "Our team already has a decade of commitment and excellence in delivering best-in-class location results on mobile and we intend to continue pushing this envelope to ensure that our machine learning algorithms and capabilities continue to set the industry standard worldwide."

Founded in 2009, Phunware sought to develop an enterprise cloud platform for mobile that enabled the efficient and cost-effective creation, management and evolution of branded applications across multiple platforms to deliver experiences that delighted, engaged, retained, and monetized the largest audiences and communities of mobile users for the world's most recognizable brands. This core vision established a future in which mobile applications were an increasingly important component of the relationship between brands and consumers and has since come to fruition in spades. For the past decade, the company

has delivered robust mobile solutions for Fortune 1000 brands, setting high-water-marks for mobile lifecycle development and management at scale across verticals including healthcare, retail, residential, corporate campuses, hospitality, media and entertainment, aviation, advocacy and more.

Phunware will continue to expand the capabilities of its MaaS platform rolling forward with the addition of its PhunCoin ecosystem, a blockchain-enabled data exchange and mobile-first loyalty ecosystem connecting brands and consumers without untrustworthy intermediaries.

Phunware, Inc. (NASDAQ: PHUN) - Everything You Need to Succeed on Mobile:

Phunware is the pioneer of Multiscreen-as-a-Service (MaaS), a fully integrated enterprise cloud platform for mobile that provides companies the products, solutions, data and services necessary to engage, manage, and monetize their mobile application portfolios and audiences globally at scale. Phunware helps the world's most respected brands create category-defining mobile experiences, with more than one billion active devices touching its platform each month. For more information about how Phunware is transforming the way consumers and brands interact with mobile in the virtual and physical worlds, visit www.phunware.com, www.phuncoin.com and follow @phunware and @phuncoin on all social media platforms.

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